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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,999	12/28/2005	Raoul Monnier	PF030094	3555
24498	7590	05/14/2007	EXAMINER	
JOSEPH J. LAKS, VICE PRESIDENT THOMSON LICENSING LLC PATENT OPERATIONS PO BOX 5312 PRINCETON, NJ 08543-5312			HU, RUI MENG	
		ART UNIT	PAPER NUMBER	
		2618		
		MAIL DATE	DELIVERY MODE	
		05/14/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/562,999 RuiMeng Hu	MONNIER ET AL. Art Unit 2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 28 December 2005.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-4 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-4 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 28 December 2005 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/28/2005</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Information Disclosure Statement*

2. The information disclosure statement submitted on 12/28/2005 has been considered by the Examiner and made of record in the application file.

### *Drawings*

3. The drawings are objected to because of fails to label each element descriptively. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application.

### *Claim Rejections - 35 USC § 112*

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. **Claim 1** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Consider this "in case of interference with the digital telephone base", then performs "the frequency of the local oscillator of the tuner is shifted by one...", however the claim fails to particularly point out what the object interferes with the digital telephone base, thus leaves a person in doubt if that the object is a user, an adjacent channel or a tuner. Furthermore, the claim limitation is written in

the alternative form, specifically the applicant use of the language "in case of" permits the claim interpretation to create a scenario where there is no interference.

***Claim Rejections - 35 USC § 101***

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 2-4** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. **Claim 2** claims "a software program", however the claim fails to mention said software program stored on an appropriate processor memory and executed by the processor so as to permit the function of the descriptive material to be realized, thus said software program is not limited to physical devices and could reasonably include electromagnetic propagation signals which do not fall under statutory subject matter.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. **Claims 1-4** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Takeuchi et al. (JP 2003-133974)** in view of **Hillum et al. (US Patent 5249202)**.

Consider **claim 1**, Takeuchi et al. clearly disclose a method of demodulation in a receiver/decoder (paragraphs 7, 10-11, 14-19) comprising a tuner (figure 1, pocket television 43) including a local oscillator (oscillator 62), a demodulator situated downstream of the tuner (figure 1, pocket TV 43) and a digital telephone base (personal digital cellular (PDC) phone 42) wherein, in case of interference with the digital telephone base (paragraphs 10-11, jamming frequency), the frequency of the local

oscillator of the tuner is shifted by one or more synthesis intervals (the frequency of oscillator 62 is manageable (tunable) so as to be at different frequency of oscillator 48, thus not to increase error).

However, Takeuchi et al. fail to disclose scanning of an error signal given by the error indicator situated in the demodulator.

In the same field of endeavor, Hillum et al. clearly disclose tuning the frequency of the local oscillator to achieve better received signal quality based on the measured bit error rate (measurement of bit-error-rate requires scanning and counting of error bits) (figures 2 and 4, column 6 line 53-column 7 line 35).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the selection techniques taught by Hillum et al. into the art of Takeuchi et al. as to efficiently manage the frequency of oscillator 62 by first scanning of error bits so as to determine the signal quality if it is within the acceptable range.

Consider **claim 2**, Takeuchi et al. clearly disclose a receiver/decoder (paragraphs 7, 10-11, 14-19) comprising a tuner including a local oscillator (figure 1, oscillator 62), a demodulator situated downstream of the tuner (figure 1) and a digital telephone base (personal digital cellular (PDC) phone 42), and shifting of the frequency of the local oscillator (oscillator 62) of the tuner when the telephone base interferes with the local oscillator.

However, Takeuchi et al. fail to disclose furthermore comprises a software program means for scanning an error signal issued from the error indicator situated in

the demodulator, which acts so as to control the shifting of the frequency of the local oscillator.

In the same field of endeavor, Hillum et al. clearly disclose a DSP 7 comprising a program means for scanning an error signal issued from the error indicator situated in the demodulator (figures 2 and 4), which acts so as to control the shifting of the frequency of the local oscillator (column 6 line 53-column 7 line 35).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the selection techniques taught by Hillum et al. into the art of Takeuchi et al. as to efficiently manage the frequency of oscillator 62 by first scanning of error bits so as to determine the signal quality if it is within the acceptable range.

Consider **claim 3 as applied to claim 2**, Takeuchi et al. as modified by Hillum et al. clearly disclose wherein the frequency shift of the local oscillator is effected in shifting the value of it by one or more synthesis intervals (Hillum et al. column 7 line 31, the frequency shift of the local oscillator is by 5 kHz per step, thus the oscillator 62 of Takeuchi et al. as modified could be tuned in steps for better efficient).

Consider **claim 4 as applied to claim 3**, Takeuchi et al. as modified by Hillum et al. clearly disclose wherein the frequency shift of the local oscillator is at most equal to a shift automatically compensatable for by the demodulator (Hillum et al. column 7 line 31, the frequency shift of the local oscillator is by 5 kHz per step, thus the oscillator 62 of Takeuchi et al. as modified could be tuned in steps at 5 kHz per step).

***Conclusion***

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed**

**to:**      Commissioner for Patents  
                  P.O. Box 1450  
                  Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RuiMeng Hu whose telephone number is 571-270-1105. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Art Unit: 2618

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RuiMeng Hu  
R.H./rh  
May 2, 2007

EDAN ORGAD  
PRIMARY PATENT EXAMINER

*Edan Orgad* 5/7/07